



GROWING APPLE TREES IN THE HOME GARDEN

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Growing apple trees in the home garden can be fun and rewarding. Several factors are important to consider before planting for successful apple production. Apple variety and rootstock, site selection, proper planting, training and pruning, adequate fertility, and pest control all contribute to healthy and productive trees. A brief discussion of these considerations follows.

Rootstocks and Tree Spacing - All apple trees sold commercially consist of two parts that are grafted together to form the tree. The "scion" is the top portion that branches and bears fruit and is grafted onto a "rootstock". The type of fruit is determined by the scion variety. The rootstock can be a "seedling", which produces a full size or standard tree, or the rootstock can be "size-controlled" or "dwarfing", which produces a tree that is smaller than full size. The rootstock determines the relative size of the tree but does not affect the type or quality of fruit that the tree bears. Different rootstocks

are desirable because they can control the size of the apple tree, reduce the time until the tree reaches fruit-bearing age, and may offer some pest resistance.

Table 1 lists some important characteristics of the rootstocks that are commercially available. Tree size is relative and is shown as a percent of the size that the tree would be on a full size seedling root-stock. Rootstock, soil fertility, and pruning can influence tree size, and therefore influence tree spacing. Table 1 suggests a range of planting distances with the wider distances for trees planted in good, fertile soils and optimum growing conditions. Trees on the more dwarfing root-stocks must be staked for the life of the tree to obtain optimum growth and to prevent leaning and potential tree breakage. Commonly used stakes consist of a 3-inch diameter wood pole or a 1-inch diameter metal conduit. The stake should be 10 feet high with 2 feet driven into the ground approximately 6 inches from the base of the tree.

Table 1: Rootstock Characteristics.

Rootstock	Tree Size as Percent of Seedling	Tree Spacing in Row (ft)	Anchorage	Years to Fruit Production
Seedling*	100	15-18	Excellent	6-10
MM.111	85	14-18	Excellent	4-6
MM.106	80	12-16	Excellent	3-4
M.7a	70	10-14	Fair	3-4
M.26**	50	8-12	Poor	2-4
Mark**	35-40	6-8	Good	2-3
M.9**	35	4-8	Poor	2-3

* Mature tree is 12-20 feet tall, depending on variety.

** Trees should be staked and tied to the stake at planting.

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